

WHY ? Despite being cost competitive in many settings, renewable energy diffusion remains limited due to climate variability. The main objective of S2S4E is to make the European energy sector more resilient to climate variability and high impact climate events.

WHAT? The S2S4E project is creating an operational climate service that will enable renewable energy producers and providers, electricity network managers, and policymakers to design better-informed strategies at sub-seasonal to seasonal (S2S) timescales.

HOW? Developing a web-based climate service, the Decision Support Tool (DST) that will offer S2S forecasts for solar, wind, hydro generation and electricity demand tailored to the users.



Target users



Post-construction decisions

Energy producers: Resource management strategies
Energy traders: Resource effects on markets
Plant operators: Planning for maintenance works, especially offshore wind O&M
Plant investors: anticipate cash flow, optimize return on investments

Midterm planning

Grid operators:
 Anticipate hotter/colder seasons
 Schedule power plants to reinforce supply.
Energy traders:
 Anticipate energy prices.

Climate Services

The S2S4E climate service will include:

- ✓ web-based Decision Support Tool (DST)
- ✓ API to access the forecast
- ✓ Data download options
- ✓ Expert advice
- ✓ Webinars
- ✓ Monthly Forecast outlooks
- ✓ 8 Case studies reports
- ✓ Factsheets
- ✓ Technical documentation

Decision Support Tool (DST)

To combine new sources of information

Information from different models – forecasts, sub-seasonal and seasonal – are combined into a single climate prediction.

To provide skilful predictions

Sub-seasonal and seasonal predictions rely on a variety of sources, from the initial atmospheric conditions to the land-sea-ice status and other.

Co-produced with users

Providing useful, usable and accessible climate forecasts information to the energy users by tailoring the predictions to their needs and making them really available.

